

【 ABSTRACT】

Disclosed are an apparatus for preparing hydrogen and carbon monoxide (hereinafter, referred to as “synthesis gas”) from methane and an oxygen containing compound using an atmospheric pressure barrier discharge reaction and a method for preparing the synthesis gas using the same. According to the invention, when the synthesis gas is prepared from the methane and the oxygen containing compound using the barrier discharge plasma at the low temperature, it is possible to obtain the same performance as the case using a high temperature catalyst reaction more economically at a time. In particular, according to the invention, it is possible to save the energy by about 35%, compared to the case using the prior heating only.

2078645

111805